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| APPLICATION NO.                    | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/507,128                         | 09/10/2004  | Patrizia Melpignano  | APV31817            | 8838             |
| 24257                              | 7590        | 04/06/2006           | EXAMINER            |                  |
| STEVENS DAVIS MILLER & MOSHER, LLP |             |                      | REHM, ADAM C        |                  |
| 1615 L STREET, NW                  |             |                      | ART UNIT            | PAPER NUMBER     |
| SUITE 850                          |             |                      |                     |                  |
| WASHINGTON, DC 20036               |             |                      | 2875                |                  |

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                   |
|------------------------------|--------------------------|-------------------|
| <b>Office Action Summary</b> | Application No.          | Applicant(s)      |
|                              | 10/507,128               | MELPIGNANO ET AL. |
|                              | Examiner<br>Adam C. Rehm | Art Unit<br>2875  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 September 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 10 September 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/10/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

- Optical elements different from each other per at least Claim 9.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "different" in Claims 9 and 18 is a relative term, which renders the claim indefinite. The term "different" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 8, 10-17 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by C.F. MADIGAN ET AL, *Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification*, Applied Physics Letters, March 27, 2000, at 1650 (published article). MADIGAN discloses a lighting device (Fig. 3 generally) comprising:

- An OLED/light source with positive and negative electrodes having point of light emission pixels between said electrodes (Fig. 3);
- A partly transparent substrate for diffusing OLED light (Fig. 3);

- A lenticular optical element/lens array on the substrate opposite to the OLED for diffusing light comprising a plurality of diffractive microlenses on a second face of said substrate to form an integrated structure to generate, emit and direct light (Fig. 3);
- Wherein the microlenses are equal to each other (Fig. 3);
- Wherein the substrate is made of plastic or glass (Table 1); and
- Wherein the microlenses centers are shifted with respect to the relative point of light emission/the other of the mail axes (Page 1652, Column 2, Paragraph 3).

4. Regarding the method claims, the method of forming a device is not germane to the issue of patentability of the device itself. Therefore, these limitations have not been given patentable weight.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 7, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.F. MADIGAN ET AL, *Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification*, Applied Physics Letters, March 27, 2000, at 1650 (published article). MADIGAN discloses the claimed invention including microlenses on a substrate (Fig. 3), but does not disclose

microlenses or a substrate sized as claimed by applicant. However, it would have been obvious to one having ordinary skill in the art at the time of invention to decrease the size of the MADIGAN light device to lower material costs and decrease material processing time thus increasing process efficiency, since such a modification would have involved a mere change in the size of the existing components. Notably, changes in size are generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. MORLEY ET AL. (US 6,809,470) discloses a light display with OLEDs.
7. KIMURA (US 6,479,942) discloses an OLED with lens array.
8. DOVE ET AL. (US 6,332,693) discloses a lighting device with an offset lenslet.
9. TIAO ET AL. (US 6,254,246) discloses an illumination device with OLEDs.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR  
3/30/2006



Sandra O'Shea  
Supervisory Patent Examiner  
Technology Center 2800